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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,229	12/28/2000	Darwin A. Engwer	3239P065	9332

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EXAMINER

SHERKAT, AREZOO

ART UNIT	PAPER NUMBER
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2131

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/753,229

Applicant(s)

ENGWER ET AL.

Examiner

Arezoo Sherkat

Art Unit

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19, 24-27 and 29-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-19, 24-27, 29, 31, 32, 34, 35, 37 and 38 is/are rejected.
- 7) ☒ Claim(s) 8, 9, 30, 33 and 36 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>May 5&amp;8, 03&amp;4/16/01</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

Claims 1-19, 24-27, and 29-38 are presented for examination.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7, 10-19, 24-27, 29, 31-32, 34-35, and 37-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Ala-Laurila et al., (U.S. Publication No. 2002/0009199 and Laurila hereinafter).

Regarding claims 1, 27, and 34, Laurila discloses an authentication method comprising:

generating an initialization vector at a first electronic device, determining at the first electronic device whether the initialization vector falls within a first group of initialization vectors, the first group including a plurality of initialization vectors solely used in connection with an authentication sequence, and encrypting information using in part the initialization vector for return to a second electronic device if the initialization vector falls within the first group (Pages 4-5, Par. 0045-0054).

Regarding claim 2, Laurila discloses wherein the first electronic device is a wireless unit (Pages 1-2, Par. 0015-0019).

Regarding claims 3, 26, and 35, Laurila discloses wherein the second electronic device is an access point (Pages 1-2, Par. 0015-0019).

Regarding claim 4, Laurila discloses wherein prior to generating the initialization vector, the method comprises receiving the information from the second electronic device by the first electronic device (i.e., association\_response)(Page 4, Par. 0046).

Regarding claims 5 and 15, Laurila discloses wherein the information is a challenge text (Page 1, Par. 0007).

Regarding claims 6-7, and 16-17, Laurila discloses wherein the challenge text is a first sequence of bits and the initialization vector is a second sequence of bits produced by a number generator (Pages 4-5, Par. 0045-0054).

Regarding claims 11 and 18, Laurila discloses wherein prior to receiving the challenge text, the method further comprises negotiating a shared secret key between the first and the second electronic device (Page 4, Par. 0049).

Regarding claims 12, 19, and 38, Laurila discloses wherein the encrypting of the information includes:

combining the initialization vector with the shared secret key, and repeatedly performing bitwise Exclusive-OR (XOR) operations on the challenge text using a combination of the initialization vector with the shared secret key (Page 4, Par. 0051-0052).

Regarding claims 13-14, Laurila discloses a method for authenticating a wireless unit in communications with an access point comprising:

transmitting a challenge text from the access point to the wireless unit (i.e., Open\_System\_Authenticatio\_result, 302), receiving an encrypted challenge text and an initialization vector from the wireless unit, the initialization vector falling within a first group of initialization vectors, the first group including a plurality of initialization vectors solely used in connection with an authentication sequence, and decrypting the encrypted challenge text using both the initialization vector and a pre-stored copy of a shared secret key to recover a challenge text (Page 4, Par. 0045-0050).

Regarding claim 24, an electronic device comprising:

a memory to contain a plurality of keys including a shared secret key (Page , Par. 0041);

a number generator, a device management logic in communication with the memory and the number generator, the device management logic including:

logic configured to analyze an initialization vector generated from the number generator to determine whether the initialization vector is used for either authentication or data communications, and a wireless transceiver to transmit and receive information configured to support the authentication (Page 4, Par. 51-53).

Regarding claim 25, Laurila discloses wherein the authentication is Wired Equivalent Privacy (WEP) authentication (Page 1, Par. 0002).

Regarding claims 10, 32, and 37, Laurila discloses wherein the selected series of bits is continuous (i.e., the second ciphering key K is concatenated with a 24-bit initialization vector IV so as to form an input 401 for a WEP pseudorandom number generator WPRNG)(Page 4, Par. 0051).

Regarding claims 29 and 31, Laurila discloses wherein the determining whether the initialization vector falls within the first group includes determining whether the initialization vector forms numeric values within a range (i.e., the numeric values are between  $2^0$  and  $2^{24}$ )(Page 4, Par. 0051).

***Allowable Subject Matter***

Claims 8-9, 30, 33, and 36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kimura, (U.S. Publication No. 2001/0048744),

Lynn et al., (U.S. Patent No. 5,444,781), and

Liechti et al., (U.S. Patent No. 5,715,164).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arezoo Sherkat whose telephone number is (571) 272-3796. The examiner can normally be reached on 8:00-4:30 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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May 27, 2005



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